

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number  
**WO 2004/045183 A1**

(51) International Patent Classification<sup>7</sup>: **H04L 29/06, 12/46**

(74) Agent: KOHRS, Martin; Thomson, 46, quai Alphonse Le Gallo, F-92648 Boulogne Cedex (FR).

(21) International Application Number:  
**PCT/EP2003/012832**

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
13 November 2003 (13.11.2003)

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

**Published:**

— with international search report

(26) Publication Language: English

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

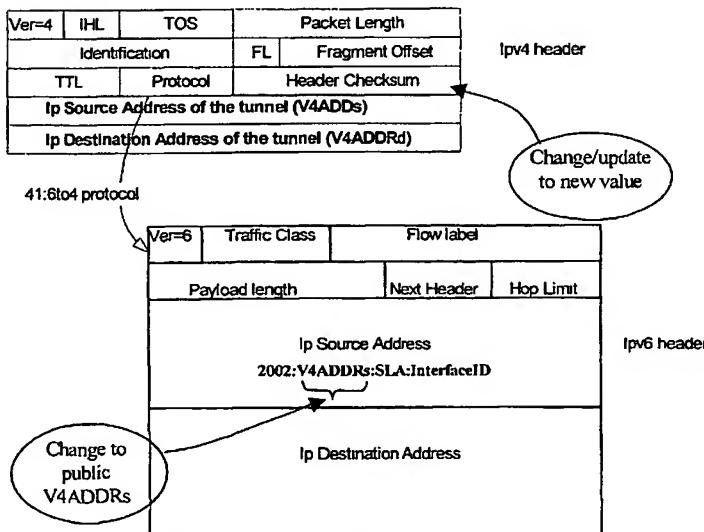
(30) Priority Data:  
02292825.3 13 November 2002 (13.11.2002) EP

(71) Applicant (*for all designated States except US*): THOMSON LICENSING S.A. [FR/FR]; 46, quai A. Le Gallo, F-92100 Boulogne (FR).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): LEPOIL, Elisabeth [FR/FR]; 55, rue du Parc, F-35135 Chantepie (FR). VAN AKEN, Dirk [BE/BE]; J.S. Bachlaab 12B2, B-1083 Gan-shoren (BE).

(54) Title: METHOD AND DEVICE FOR SUPPORTING A 6TO4 TUNNELING PROTOCOL ACROSS A NETWORK ADDRESS TRANSLATION MECHANISM



WO 2004/045183 A1

(57) Abstract: A method for supporting a 6to4 tunneling protocol across a network address translation mechanism. The method comprises the steps of receiving an outbound IPv6 packet encapsulated into an IPv4 packet, translating the private IPv4 source address in the IPv4 header of the outbound packet into a public IPv4 source address, transmitting the translated packet over the IPv4 network; and is characterized in that it further comprises the step of storing an association of the private IPv4 address and the Interface ID value of the 6to4 source address for opposite address translation of inbound packets. A corresponding device is also claimed.